## IN THE CLAIMS:

1. (Currently amended) A tetrahedral compound having formula (I),

$$R_{3}^{1}$$
 $R_{3}^{1}$ 
 $R_{2}$ 
 $R_{3}^{1}$ 
 $R_{2}$ 

wherein TS is a tetrahedral junction unit selected from the group consisting of tetraphenylsilane, an sp<sup>3</sup> hybridized silicon atom, tetraphenyladamantane, adamantane and cubane; and R1, R2, R3 and R4 are each organic, inorganic or hybrid optoelectronic arms, wherein each optoelectronic arm is a linear oligomer, polymer or copolymer.

- 2. (Currently amended) The tetrahedral compound of claim 1 wherein each optoelectronic arm is a semiconducting monomer, oligomer, polymer or copolymer.
- 3. (Original) The tetrahedral compound of claim 1, each optoelectronic arm comprising a stilbenoid chromophore.
- 4. (Currently amended) The tetrahedral compound of claim 1 wherein R1, R2, R3 and R4 are optoelectronic arms corresponding to general formula II:

II

wherein R is hydrogen; R' is alkoxy alkyl, aryl, aryloxy, cyano, halide or amino; and n is an integer from  $\pm 2$  to 100.

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- 5. (Withdrawn) The tetrahedral compound of claim 4 selected from the group consisting of tetrakis(4-(3',5'-di-*tert*-butylstyryl)stilbenyl)methane, tetrakis(4-(4'-(4''-tert-butylstyryl)styryl)stilbenyl)methane, tetrakis(4-(4'-(3'',5''-dioctyloxy-d')styryl)stilbenyl)methane, tetrakis((4-(2'5'-dioctyloxy-d')-(4''-(2''',5'''-dioctyloxy-d')-(4'''-(3''',5'''-dioctyloxy-d')-(4'''-(3''',5'''-dioctyloxy-d')-(4''''-(3''',5'''-dioctyloxy-d')-(4''''-(3''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3'''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''-dioctyloxy-d')-(3''',5'''
  - 6. (Canceled)
- 7. (Currently amended) The tetrahedral compound of claim 6 selected from the group consisting of tetrastilbenyladamantane, tetrastilbenylsilane, tetrakis(4-tert-butylstyrylstilbenyl)adamantane and tetrakis(4-tert-butylstyrylstilbenyl)silane.
- 8. (Withdrawn) The tetrahedral compound of claim 1 wherein R1, R2, R3 and R4 are optoelectronic arms corresponding to general formula III:

III

wherein R is hydrogen; R' is alkoxy alkyl, aryl, aryloxy, cyano, halide or amino; and n is an integer from 1 to 100.

9. (Withdrawn) The tetrahedral compound of claim 8 selected from the group consisting of tetrakis(4,4'-(2,2-diphenyl-vinyl)-1,1'-biphenyl)-methane and tetrakis(4,4'-(3,3-diphenylacrylonitrile)-1,1'-biphenyl)methane.

10. (Currently amended) The tetrahedral compound of claim 1 wherein R1, R2, R3, and R4 are each independently optoelectronic arms corresponding to formula (II) through formula (LXVIII):

XIII

XIV

XV

XXV

XXVI

XXVII

XXVIII

XLIII

XLIV

XLII

XLIX

L

LI

LII

LIII

LIV

LV

LVI

LVII

LVIII

LIX

LX

wherein R is hydrogen; R' is selected from the group consisting of alkoxy, alkyl, aryl, aryloxy, cyano, halide and amido; n is an integer from  $\pm 2$  to 100; X and Y are independently selected from the group consisting of C-R', CR, NR and NR' <u>nitrogen</u>; Z is selected from the group consisting of OR, OR' <u>oxygen</u>, SR, SR' NR, NR', CRR', -CH=CH-R, -CH=CH-R', and CN; and M in formula XXI is selected from the group consisting of sulfur, selenium and tellurium.

## 11. (Currently amended) A tetrahedral compound having formula (I),

$$R_{3}^{1}$$
 $R_{3}^{1}$ 
 $R_{2}$ 
 $R_{3}^{1}$ 
 $R_{2}$ 

wherein TS is a tetrahedral junction unit selected from the group consisting of tetraphenylmethane, tetraphenylsilane, an sp<sup>3</sup> hybridized silicon atom, tetraphenyladamantane,

adamantane and cubane; and R1, R2, R3 and R4 are each optoelectronic arms corresponding to general formula II:

II

wherein R is hydrogen; R' is alkoxy, alkyl, aryl, aryloxy, cyano, halide, or amino; and n is an integer from 2 to 100.

12. (Withdrawn) A tetrahedral compound having formula (I),

$$\begin{array}{c}
R_1 \\
R_3 \\
\end{array}$$
(I)

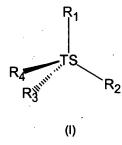
wherein TS is a tetrahedral junction unit selected from the group consisting of tetraphenylmethane, tetraphenylsilane, an sp<sup>3</sup> hybridized carbon or silicon atom, tetraphenyladamantane, adamantane and cubane; R1, R2, R3 and R4 are each optoelectronic arms corresponding to general formula III:

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wherein R is hydrogen; R' is alkoxy alkyl, aryl, aryloxy, cyano, halide or amino; and n is an integer from 1 to 100.

- 13. (Original) A composition comprising a tetrahedral compound according to claim
- 14. (Original) A composition according to claim 13 further comprising an electron or hole transport agent.
- 15. (Withdrawn) A method of making the tetrahedral compound of claim 1 having one or more optoelectronic chromophore arms attached to a tetrahedral junction site, the method comprising the steps of:
  - (a) providing a tetrahedral junction molecule having four reactive functionalities;
  - (b) providing one or more optoelectronic chromophore units, each unit having a single complementary functionality capable of reacting with a reactive functionality; and
  - (c) reacting one or more the reactive functionalities with one or more complementary functionalities, thereby linking one or more optoelectronic chromophore units to the tetrahedral junction site.
- 16. (Withdrawn) The method of claim 15 wherein the tetrahedral junction molecule is halogenated tetraphenylmethane, tetraphenylsilane, or tetraphenyladamantane.
- 17. (Withdrawn) The method of claim 16 wherein the tetrahedral junction group is tetrakis(4-bromophenyl)methane, tetrakis(4-iodophenyl)methane, tetrakis(4-iodophenyl)methane, tetrakis(4-iodophenyl)silane
- 18. (Withdrawn) The method of claim 15 wherein the optoelectronic chromophore units are conjugated organic compounds selected from the group consisting of styrene, stilbenyl derivatives, and triphenylethylene derivatives.

- 19. (Withdrawn) The method of claim 15 wherein the reactive functionalities are selected from the group consisting of aryl halides, olefins, acetylenes, boronic esters, and carbonyls.
- 20. (Withdrawn) The method of claim 15 wherein the complementary functionalities are selected from the group consisting of aryl halides, olefins, acetylenes, boronic esters, and carbonyls.
- 21. (Withdrawn) The method of claim 15 wherein the optoelectronic chromophore unit is selected from the group consisting of styrene 4,4'-tert-butylvinylstilbene, 1-(4'-tert-butylstyryl)-4-(4'-vinylstyryl)benzene, 4-(3',5'-di-tert-butylstyryl)styrene, 1-(3'5'-di-tert-butylstyryl)-4-(4'-vinylstyryl)benzene, 2,5-dioctyloxy-1-styryl-4-(4'-vinylstyryl)benzene, 1-vinyl-4-(3'5'-dihexyloxystyryl)stilbene, 1,1-diphenyl-2-(4-dihydroxyboronphenyl)-ethene and 2-(4-pinacolatoboronphenyl)-3,3-diphenylacrylonitrile.
- 22. (Original) A thin-film electronic device comprising the tetrahedral compound of claim 1.
  - 23. (Original) A thin film electronic device comprising the composition of claim 14.
- 24. (Original) The device of Claim 22 comprising at least two layers selected from the group consisting of an electroluminescent layer, an electron transport layer, and a hole transport layer, wherein at least one of said electroluminescent layer, said electron transport layer, or said hole transport layer comprises the tetrahedral compound.
  - 25. (New) A tetrahedral compound having formula (I),



wherein TS is a tetrahedral junction unit selected from the group consisting of tetraphenylsilane, an sp<sup>3</sup> hybridized silicon atom, tetraphenyladamantane, adamantane and cubane; and R1, R2, R3 and R4 are optoelectronic arms, each optoelectronic arm comprising a stilbenoid chromophore.

Should there be any questions, the Examiner is encouraged to telephone Robert Berliner of this office.

Respectfully submitted,

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